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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,051	01/23/2004	Paul J. Hays	35010/134C1	7606

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EXAMINER	
CHERRY, STEPHEN J	
ART UNIT	**PAPER NUMBER**
2863	

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/764,051	HAYS ET AL.	
	Examiner	Art Unit	
	Stephen J. Cherry	2863	AU

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7-14,16-23 and 25-27* is/are rejected.

7)☒ Claim(s) *6,15 and 24* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-5, 7-14, 16-23, and 25-27 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-21 of copending Application No. 10/261,057. Although the conflicting claims are not identical, they are not patentably distinct from each other because the scope of the present claims includes the scope of the claims of the '057 application, as shown below.

Claim of present application.	Published claim of 10/261,057.
1. Flow meter electronics, comprising: a single port; and a processing system coupled to said single port and configured to: process signals from a flow meter to determine flow meter data; generate a frequency output signal having a frequency that represents the flow meter data and transmit the frequency output signal over the single port if an output instruction comprises a frequency output instruction; and generate a digital	1. Flow meter electronics for providing a flow rate of a material flowing through a flow meter sensor of a Coriolis flow meter, said flow meter electronics comprising: a single output port; and a processing system coupled to said single output port and configured to: receive pick-off signals from

communication protocol signal that represents the flow meter data and transmit the digital communication protocol signal over the single port if an output instruction comprises a digital communication output instruction.	said flow meter sensor, process said pick-off signals to determine said flow rate of said material, receive an instruction for a frequency output signal or a digital communication protocol signal, if said instruction is for said frequency output signal, then said processing system is configured to process said flow rate to generate said frequency output signal having a frequency proportional to said flow rate, and transmit said frequency output signal over said single output port, and if said instruction is for said digital communication protocol signal, then said processing system is configured to process said flow rate to generate said digital communication protocol signal that represents said flow rate, and transmit said digital communication protocol signal over said single output port.
2. The flow meter electronics of claim 1 wherein said processing system is further configured to: determine a direction of flow of said material; if said direction of flow is in a first direction, then generate said frequency output signal to have a duty cycle below 0.5; and if said direction of flow is in a second direction, then generate said frequency output signal to have a duty cycle above 0.5.	2. The flow meter electronics of claim 1 wherein said processing system is further configured to: determine a direction of flow of said material; if said direction of flow is in a first direction, then generate said frequency output signal to have a duty cycle below 0.5; and if said direction of flow is in a second direction, then generate said frequency output signal to have a duty cycle above 0.5.

3. The flow meter electronics of claim 1 wherein said processing system is further configured to: determine if a fault has occurred; and generate said frequency output signal to have a predetermined frequency responsive to determining said fault.	3. The flow meter electronics of claim 1 wherein said processing system is further configured to: determine if a fault has occurred; and generate said frequency output signal to have a predetermined frequency responsive to determining said fault.
4. The flow meter electronics of claim 1 wherein said processing system is further configured to receive an input signal through the single port, with the input signal including the output instruction.	4. The flow meter electronics of claim 1 wherein said processing system is further configured to: receive said instruction over said single output port from a user after a power cycle, wherein said single output port acts as an input/output port for a time period after said power cycle.
5. The flow meter electronics of claim 1 wherein said processing system is further configured to receive an input signal through the single port during a predetermined time period after a power cycle event, with the input signal including the output instruction.	4. The flow meter electronics of claim 1 wherein said processing system is further configured to: receive said instruction over said single output port from a user after a power cycle, wherein said single output port acts as an input/output port for a time period after said power cycle.
7. The flow meter electronics of claim 1 wherein said flow meter data comprises a mass flow rate.	5. The flow meter electronics of claim 1 wherein said flow rate comprises a mass flow rate.
8. The flow meter electronics of claim 1 wherein said flow meter data comprises a volumetric flow rate.	6. The flow meter electronics of claim 1 wherein said flow rate comprises a volumetric flow rate.

9. The flow meter electronics of claim 1 wherein said flow meter data comprises a net volumetric flow rate.	7. The flow meter electronics of claim 1 wherein said flow rate comprises a net volumetric flow rate.
10. A method of operating flow meter electronics, comprising: processing signals from a flow meter to determine flow meter data; generating a frequency output signal having a frequency that represents the flow meter data and transmitting the frequency output signal over a single port of the flow meter electronics if an output: instruction comprises a frequency output instruction; and generating a digital communication protocol signal that represents the flow meter data and transmitting the digital communication protocol signal over the single port if an output instruction comprises a digital communication output instruction.	8. A method of operating flow meter electronics for providing a flow rate of a material flowing through a flow meter sensor of a Coriolis flow meter, said method comprising the steps of: receiving pick-off signals from said flow meter sensor; processing said pick-off signals to determine said flow rate of said material; receiving an instruction for a frequency output signal or a digital communication protocol signal; if said instruction is for said frequency output signal, then processing said flow rate to generate said frequency output signal having a frequency proportional to said flow rate and transmitting said frequency output signal over a single output port; and if said instruction is for said digital communication protocol signal, then processing said flow rate to generate said digital communication protocol signal that represents said flow rate and transmitting said digital communication protocol signal over said single output port.

11. The method of claim 10 further comprising: determining a direction of flow of said material; if said direction of flow is in a first direction, then generating said frequency output signal to have a duty cycle below 0.5; and if said direction of flow is in a second direction, then generating said frequency output signal to have a duty cycle above 0.5.	9. The method of claim 8 further comprising: determining a direction of flow of said material; if said direction of flow is in a first direction, then generating said frequency output signal to have a duty cycle below 0.5; and if said direction of flow is in a second direction, then generating said frequency output signal to have a duty cycle above 0.5.
12. The method of claim 10 further comprising: determining if a fault has occurred; and generating said frequency output signal to have a predetermined frequency responsive to determining said fault.	10. The method of claim 8 further comprising: determining if a fault has occurred; and generating said frequency output signal to have a predetermined frequency responsive to determining said fault.
13. The method of claim 10 further comprising: receiving an input signal through the single port, with the input signal including the output instruction.	11. The method of claim 8 wherein receiving an instruction for said frequency output signal or a digital communication protocol signal comprises: receiving said instruction over said single output port from a user after a power cycle, wherein said single output port acts as an input/output port for a time period after said power cycle.

14. The method of claim 10 further comprising: receiving an input signal through the single port during a predetermined time period after a power cycle event, with the input signal including the output instruction.	11. The method of claim 8 wherein receiving an instruction for said frequency output signal or a digital communication protocol signal comprises: receiving said instruction over said single output port from a user after a power cycle, wherein said single output port acts as an input/output port for a time period after said power cycle.
16. The method of claim 10 wherein said flow meter data comprises a mass flow rate.	12. The method of claim 8 wherein said flow rate comprises a mass flow rate.
17. The method of claim 10 wherein said flow meter data comprises a volumetric flow rate.	13. The method of claim 8 wherein said flow rate comprises a volumetric flow rate.
18. The method of claim 10 wherein said flow meter data comprises a net volumetric flow rate.	14. The method of claim 8 wherein said flow rate comprises a net volumetric flow rate.

19. A software product for operating flow meter electronics, said software product comprising: flow meter electronics software configured when executed by a processing system to direct the processing system to process signals from a flow meter to determine flow meter data, generate a frequency output signal having a frequency that represents the flow meter data and transmit the frequency output signal over a single port of the flow meter electronics if an output instruction comprises a frequency output instruction, and generate a digital communication protocol signal that represents the flow meter data and transmit the digital communication protocol signal over the single port if an output instruction comprises a digital communication output instruction; and a storage media configured to store said flow meter electronics software.	15. A software product for providing a flow rate of a material flowing through a flow meter sensor of a Coriolis flow meter, said software product comprising: flow meter software configured when executed by a processing system to direct the processing system to receive pick-off signals from said flow meter sensor, process said pick-off signals to determine said flow rate of said material, receive an instruction for a frequency output signal or a digital communication protocol signal, process said flow rate to generate said frequency output signal having a frequency proportional to said flow rate and transmit said frequency output signal over a single output port if said instruction is for said frequency output signal, and process said flow rate to generate said digital communication protocol signal that represents said flow rate and transmit said digital communication protocol signal over said single output port if said instruction is for said digital communication protocol signal; and a storage media configured to store said flow meter software.

20. The software product of claim 19 wherein said flow meter electronics software is further configured to direct said processing system to: determine a direction of flow of said material; if said direction of flow is in a first direction, then generate said frequency output signal to have a duty cycle below 0.5; and if said direction of flow is in a second direction, then generate said frequency output signal to have a duty cycle above 0.5.	16. The software product of claim 15 wherein said flow meter software is further configured to direct said processing system to: determine a direction of flow of said material; if said direction of flow is in a first direction, then generate said frequency output signal to have a duty cycle below 0.5; and if said direction of flow is in a second direction, then generate said frequency output signal to have a duty cycle above 0.5.
21. The software product of claim 19 wherein said flow meter electronics software is further configured to direct said processing system to: determine if a fault has occurred; and generate said frequency output signal to have a predetermined frequency responsive to determining said fault.	17. The software product of claim 15 wherein said flow meter software is further configured to direct said processing system to: determine if a fault has occurred; and generate said frequency output signal to have a predetermined frequency responsive to determining said fault.
22. The software product of claim 19 wherein said flow meter electronics software is further configured to direct said processing system to receive an input signal through the single port, with the input signal including the output instruction.	18. The software product of claim 15 wherein said flow meter software is further configured to direct said processing system to: receive said instruction over said single output port from a user after a power cycle, wherein said single output port acts as an input/output port for a time period after said power cycle.

23. The software product of claim 19 wherein said flow meter electronics software is further configured to direct said processing system to receive an input signal through the single port during a predetermined time period after a power cycle event, with the input signal including the output instruction.	18. The software product of claim 15 wherein said flow meter software is further configured to direct said processing system to: receive said instruction over said single output port from a user after a power cycle, wherein said single output port acts as an input/output port for a time period after said power cycle.
25. The software product of claim 19 wherein said flow meter data comprises a mass flow rate.	19. The software product of claim 15 wherein said flow rate comprises a mass flow rate.
26. The software product of claim 19 wherein said flow meter data comprises a volumetric flow rate.	20. The software product of claim 15 wherein said flow rate comprises a volumetric flow rate.
27. The software product of claim 19 wherein said flow meter data comprises a net volumetric flow rate.	21. The software product of claim 15 wherein said flow rate comprises a net volumetric flow rate.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

Claims 6, 15, and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 6 recites "wherein said processing system is further configured to receive an input signal through the single port during a predetermined time period after a power up event, with the input signal including the output instruction". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claim 15 recites "receiving an input signal through the single port during a predetermined time period after a power up event, with the input signal including the output instruction". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claim 24 recites "wherein said flow meter electronics software is further configured to direct said processing system to receive an input signal through the single port during a predetermined time period after a power up event, with the input signal including the output instruction". This feature in combination with the remaining claimed structure avoids the prior art of record.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Cherry whose telephone number is (571) 272-2272. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SJC

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